

WHAT IS CLAIMED IS:

1. An optical pickup device comprising:
  - a light source which emits a light beam;
  - an optical base which holds the light source;
  - 5 a dichroic prism which is fixed to the optical base, the dichroic prism reflecting the light beam emitted from the light source;
  - a mirror which is fixed to the optical base, the mirror receiving the light beam reflected from the dichroic prism;
  - 10 a heat sink which is integrated with the light source, the heat sink releasing heat from the light source; and
  - a heat sink holding member which can position the heat sink at a predetermined position in the optical base.
- 15 2. An optical pickup device according to claim 1, wherein the heat sink holding member has a boss portion which is inserted into a through hole provided in the optical base and a plane portion in which the boss can be moved in the through hole in a direction orthogonal to an axis line of the boss.
- 20 3. An optical pickup device according to claim 2, wherein a holding member pressurizing mechanism and the heat sink holding member are located at the predetermined position in the optical base.
- 25 4. An optical pickup device according to claim 3,

wherein the holding member pressurizing mechanism includes a spring member which presses the heat sink to the optical base so that the heat sink can be moved in a predetermined direction of the optical base.

5 5. An optical pickup device according to claim 2, wherein the heat sink holding member is fixed to the optical base by bonding.

6. An optical disk device comprising:  
a light source which emits a light beam;  
10 an optical base which holds the light source;  
a dichroic prism which is fixed to the optical base, the dichroic prism reflecting the light beam emitted from the light source;  
a mirror which is fixed to the optical base, the mirror receiving the light beam reflected from the dichroic prism;  
15 a heat sink which is integrated with the light source, the heat sink releasing heat from the light source;  
20 a heat sink holding member which can position the heat sink at a predetermined position in the optical base; and  
a photodetector which detects the reflected light beam in which the light beam is reflected at a recording medium and outputs an electric signal having a magnitude corresponding to intensity of the reflected light beam.

7. An optical disk device according to claim 6, wherein the heat sink holding member is fixed to the optical base by bonding.

8. An optical disk device according to claim 6,  
5 wherein the heat sink holding member has a boss portion which is inserted into a through hole provided in the optical base and a plane portion in which the boss portion can be moved in the through hole in a direction orthogonal to an axis line of the boss portion.

10 9. A method of assembling a dual wavelength optical pickup device including an objective lens which condenses a light beam onto a recording medium or captures the light beam from a recording medium, a prism mirror which folds an optical path of the light  
15 beam passing through the objective lens at a predetermined angle, a first light source which emits a light beam having a first wavelength, a second light source which outputs a light beam having a second wavelength, a collimating lens which collimates the  
20 light beam from the first light source, a dichroic prism which transmits the light beam having the first wavelength collimated by the collimating lens toward the prism mirror and reflects the light beam from the second light source toward the prism mirror, and an  
25 optical base which holds each of elements, the method comprising the steps of:

fixing the prism mirror at a predetermined

position in the optical base directly or through a holding member;

5       fixing the collimating lens at the predetermined position in the optical base directly or through the holding member so that the light beam from the first light source can be incident on the prism mirror under a predetermined condition;

10      fixing the dichroic prism at the predetermined position in the optical base directly or through the holding member, while a virtual light source for assembly is used instead of the second light source and the light beam from the virtual light source is monitored as the light beam reflected from the prism mirror;

15      positioning the second light source, which is fixed to a heat sink on the basis of a monitor signal obtained by an alignment photodetector or a detector of an autocollimator, at the predetermined position in the optical base; and

20      bonding a heat sink holding member to the optical base, the heat sink holding member holding the heat sink so that a relative position between the heat sink and the optical base can be changed.

10. A method of assembling an optical pickup device according to claim 9, wherein the heat sink holding member is fixed to the optical base by bonding.

11. A method of assembling an optical pickup

device according to claim 10, wherein the heat sink holding member has a boss portion which is inserted into a through hole provided in the optical base and a plane portion in which the boss portion can be moved in the through hole in a direction orthogonal to an axis line of the boss portion, and a spring material presses the heat sink holding member to the optical base.

12. A method of assembling an optical pickup device according to claim 10, wherein the heat sink holding member is moved parallel to the plane portion and located at the predetermined position in the optical base so that the monitor signal obtained by the alignment photodetector or the detector of the autocollimator is maximized.